

Evergreen Technologies, Inc.

Spectra™ 233

Processor Upgrade

White Paper

Version 2.0 06/04/99

Evergreen Technologies, Inc.

Spectra 233

Processor Upgrade

- Product Description
- Product Highlights
- Product Overview
- Features and Benefits
- Nature of Demand
- Performance
- Compatibility
- How to order



Product Description

The Evergreen *Spectra 233* is a high-performance processor upgrade for 75 MHz and higher speed Pentium® processor-based PCs. Based on the IDT™ WinChip™ 2 processor, this innovative upgrade allows users to migrate to 233 MHz and run 3DNow!™ instructions for faster imaging, smoother video playback and enhanced game play.

Product Highlights

- Delivers over 200% performance increase in Windows® applications
- Upgrades 75, 90, 100, 120, 133, 150, and 166 MHz Pentium-based systems to 233 MHz
- Powered by IDT WinChip 2 Processor with 3DNow!
- Executes both 3DNow! and MMX™ instructions for better imaging, smoother video playback and an enhanced game experience
- 64K Internal (Level 1) Cache
- Includes a built-in compatibility adapter
- Supports Windows 98, Windows 95, Windows NT®, Windows 3.x & DOS
- Software reinstallation not required
- Includes step-by-step illustrated Installation Guide
- Expands PC life at a minimal cost
- Lifetime Warranty

Product Overview

The Evergreen *Spectra 233* is the newest addition to the socket-based upgrade family. *Spectra 233* enables Pentium® processor-based systems to perform like 233 MHz systems. This upgrade utilizes the IDT WinChip 2 233 MHz processor with 3DNow! and upgrades P75 and higher desktop systems to increase performance above 200%. As technology constantly improves, the lifecycle of computers continues to decrease. Evergreen's *Spectra 233* alleviates the high cost of PC replacement by boosting system performance for a fraction of the cost of a new PC.

Features and Benefits

Spectra 233 increases PC performance over 200% and features superior 3D performance, life-like images, graphics, sound and an enhanced Internet experience. The *Spectra 233* delivers the power and performance needed for today's most demanding software and carries a lifetime warranty.

Nature of Demand

Corporate America has been searching for a solution to the overwhelming cost of purchasing, deploying and maintaining PC assets that have depreciation schedules anywhere from three to five years. Unfortunately, during the five-year lifecycle during which corporate PCs depreciate, the industry's software and hardware advancements leapfrog the installed base by at least two generations. Evergreen has been working to solve this fundamental problem:

How can corporate IT professionals make their PCs last as long as their PCs depreciation cycle and still keep them productive?
--

The *Spectra 233* is a reprieve from obsolescence, providing older systems with the performance of new systems. With processor upgrades, users can replace the highest performance component of the PC while maintaining the system components that have not improved over time (floppy disk, power supply, chassis, etc).

Evergreen's *Spectra* offers the best alternative for maintaining the value of a PC. With *Spectra*, IT managers achieve new system performance while avoiding both the capital cost of buying new systems and the overwhelming maintenance expense of replacing PC motherboards. *Spectra* does not modify the operating system, so there is no threat of interference with corporate PC data standards.

Spectra is a simple, fast, cost efficient vehicle to improve the IT productivity of a business.

Performance

As demonstrated in the graphs below, the performance increase gained from the *Spectra233* is almost three times the performance of the original 75MHz Pentium w/ MMX computer. *Spectra 233* upgrades Pentium PCs to the performance of comparably configured new PCs.

The following Winstone®99 benchmark illustrates a three times performance gain over a 75 MHz Pentium PC with MMX™.

Original Pentium PC <i>75 MHz, 32 MB</i>	Before Upgrading	Upgrading with Spectra 233
	2.87	7.88

Based on overall score of Winstone 99 for Windows NT 4.0. Test system configuration: Pentium 75 MHz, Intel Advanced/ZP (Zappa) System Board, 430FX chipset AMI BIOS version 1.00.11.BSOT, MRBIOS version 3.45, 32MB 60ns 72-pin EDO SIMM, Western Digital Caviar AC11200L 1.18GB IDE hard disk, S3 Trio64 PowerGraph 64 PCI 2MB VGA card, onboard 256 L2 cache, Windows 98 version 4.10.1998, DirectX 6™

The following Intel Media benchmarks illustrate a four to five times performance gain over the original system performance.

Intel media Benchmark	Original 75 MHz	Original 100 MHz	Original 133 MHz	Evergreen Spectra 233
Windows 95				
Video	57.89	78.48	78.13	276.64
Image Processing	62.93	84.41	109.74	760.66
3D Graphics	51.39	69.23	88.17	164.59
Audio	62.52	83.95	99.79	261.71
Overall	57.18	71.15	95.96	245.59
Windows 98				
Video	56.69	76.85	96.3	271.26
Image Processing	60.18	81.54	106.4	734.43
3D Graphics	57.83	78.46	99.38	136.77
Audio	60.37	81.76	97.29	261.84
Overall	58.1	78.77	97.95	230.12

System configuration: Pentium 75 MHz, Intel Advanced/ZP (Zappa) System Board, 430FX chipset AMI BIOS version 1.00.11.BSOT, MRBIOS version 3.45, 32MB 60ns 72-pin EDO SIMM, Western Digital Caviar AC11200L 1.18GB IDE hard disk, S3 Trio64 PowerGraph 64 PCI 2MB VGA card, onboard 256 L2 cache, Windows 98 version 4.10.1998, DirectX 6™

Test Details: Intel Media Benchmark for Windows 95 and Windows 98

Compatibility

Spectra 233 upgrades standard Pentium processor-based PCs that are 75MHz and higher, and supports Socket 5, Socket 7 and Super7 Socket platforms. Please call Evergreen's Customer Care Center at 541-757-0934 or sales@evertech.com to check compatibility for your personal system.

How to Order

Please call Evergreen at 541-757-0934 to discuss *Spectra 233* with our **CCTeam™** sales group or email to sales@evertech.com.